

MAXWELL JONES

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Bachelor of Science in Artificial Intelligence
Additional Major in Mathematics

Expected Graduation: May 2023
GPA: 4.0/4.0

Thomas Jefferson High School for Science and Technology, Alexandria, VA
High School Diploma

2015-2019
GPA: 4.1/5.0

PROJECTS

Walksafe / CMU TartanHacks

February 2020

- Developed a Python program on team of 4 that calculates safe and efficient walking paths at night in New York City.
- Created a weighted graph from crime and street data and implemented an A* algorithm to generate optimal paths.
- Integrated Open Street Map API and fetched data from NYPD crime database REST endpoint.

Football Predictions with Linear Algebra

December 2019

- Used Massey and Keener mathematical models to predict NFL playoff outcomes given regular season data.
- Implemented models with Jupyter Notebook and Julia and accurately predicted super bowl winner in 2009.

Origami Social Network

August 2018-May 2019

- Developed a Node.js application that allows origamists to connect with each other and share their work
- Implemented user accounts, used MD5 hashing to safely store passwords, added cookies to store login data.
- Created a Python program to allow users to design and store crease patterns of their models.

Othello Game AI

January 2018

- Coded an algorithm that plays Othello against a human using a heuristic and negamax to find new moves.

EXPERIENCE

Data Science Intern / Fiat Chrysler Automobiles

Summer 2020

- Optimized the HR absentee prediction model in Python resulting in a 2% increase in accuracy.
- Improved neural network performance by cross referencing crew attendance across plants.
- Queried data from PostgreSQL database and used Pandas dataframe library to store query results.

Teaching Assistant / 15-151 Concepts in Mathematics for Computer Scientists

Fall 2020

- Teach 20-student recitation twice per week and help create problems for homework and tests.
- Lead review Sessions and game nights with >100 people per event
- Host weekly office hours, grade homework and exams, and attend weekly staff meetings.

SKILLS

Programming: Python, Java, C, SQL, Julia, JavaScript, HTML, Latex

Tools/Frameworks: Sklearn, Keras, NumPy, Jupyter Notebook, Pandas, Git, Unix Command Line

Coursework: 15-281 Artificial Intelligence, 10-315 Machine Learning, 15-213 Computer Systems, 15-251 Great Theoretical Ideas in Computer Science, 15-150 Functional Programming, 15-122 Principles of Imperative Computation, 21-325 Probability Theory, 21-260 Differential Equations, 15-151 Concepts in Mathematics, 21-484 Graph Theory.

INVOLVEMENT

Treasurer for SPIRIT, CMU Black Student Organization, Origami Club Officer, CMU SCS Social Media Ambassador, Club Basketball, Kappa Sigma Fraternity.